

STATE OF WYOMING
DEPARTMENT OF PUBLIC HEALTH
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Cheyenne

REGULATIONS GOVERNING CONDITIONS UNDER WHICH APPROVED WATER SUPPLY
SIGNS MAY BE ISSUED TO INCORPORATED COMMUNITIES OF THE STATE.

Section 1. Any incorporated community having a municipal water supply which has been approved by the state health officer shall be eligible to receive approved water supply signs.

Section 2. Before a municipal water supply is approved the supply must meet the following standards:

- A. AS TO BACTERIOLOGICAL QUALITY. The bacteriological examinations of water considered under this Section shall be of samples collected at representative points throughout the water distribution system. The minimum number of water samples that must be submitted by any city or town is set forth in the following table:

<u>POPULATION SERVED</u>	<u>MINIMUM NO. OF SAMPLES PER MONTH</u>
2500 & under	3
10,000	7
25,000 & over	one sample for each 1000 population or fraction thereof.

Samples shall be collected in accordance with the instructions enclosed with each sample container and shall be collected from different points in the water distribution system. Samples shall be submitted for examination to the State Public Health Laboratory the same day the samples are collected. Samples shall be submitted at such intervals as specified by the state health officer.

Water samples will be examined in the State Department of Public Health Laboratory in accordance with the methods prescribed in "Standard Methods of Water Analysis", American Public Health Association, 1946.

Of all the standard (10 ml.) portions examined per month in accordance with the specified procedure, not more than ten (10) per cent shall show the presence of organisms of the coliform group.

Occasionally three (3) or more of the five (5) equal ten (10 ml.) portions constituting a single standard sample may show the presence of organisms of the coliform group, provided that this shall not be allowable if it occurs in consecutive samples or in more than:

- Five (5) percent of the standard samples when twenty (20) or more samples have been examined per month.
- One (1) standard sample when less than twenty (20) samples have been examined per month.

B. AS TO THE PHYSICAL AND CHEMICAL CHARACTERISTICS.

Physical Characteristics. The turbidity of the water shall not exceed 10 p.p.m. (silica scale), nor shall the color exceed 20 (platinum-cobalt scale). The water shall have no objectionable taste or odor.



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Chemical Characteristics. The water shall not contain an excessive amount of soluble mineral substance, nor excessive amounts of any chemicals employed in treatment. Under ordinary circumstances, the analytical evidence that the water satisfies the physical and chemical standards given herein and simple evidence that it is acceptable for taste and odor will be sufficient for approval with respect to physical and chemical characteristics.

- (a) The presence of lead (Pb) in excess of 0.1 p.p.m., of fluoride in excess of 1.5 p.p.m., of arsenic in excess of 0.05 p.p.m., of selenium in excess of 0.05 p.p.m., of hexavalent chromium in excess of 0.05 p.p.m., shall constitute grounds for rejection of the supply. Salts of barium, hexavalent chromium, heavy metal glucosides, or other substances with deleterious physiological effects shall not be added to the system for water treatment purposes.
- (b) The following chemical substances which may be present in natural or treated waters shall not occur in excess of the following concentrations where other more suitable supplies are available.

Copper (Cu) shall not exceed 3.0 p.p.m.

Iron (Fe) and manganese (Mn) together shall not exceed 0.3 p.p.m.

Magnesium (Mg) shall not exceed 125 p.p.m.

Zinc (Zn) shall not exceed 15 p.p.m.

Chloride (Cl) shall not exceed 250 p.p.m.

Sulfate (SO_4) shall not exceed 250 p.p.m.

Phenolic compounds shall not exceed 0.001 p.p.m. in terms of phenol.

Total solids should not exceed 500 p.p.m. for a water of good chemical quality. However, if such water is not available, a total solids content of 1,000 p.p.m. may be permitted. For chemically treated waters, i.e., lime softened, zeolite or other ion exchange treated waters, or any other chemical treatments, the following three requirements shall be met:

- (1) The phenolphthalein alkalinity (calculated as CaCO_3) shall not be greater than 15 p.p.m. plus 0.4 times the total alkalinity. This requirement limits the permissible pH to about 10.6 at 25°C.
- (2) The normal carbonate alkalinity shall not exceed 120 p.p.m. Since the normal alkalinity is a function of the hydrogen ion concentration and the total alkalinity, this requirement may be met by keeping the total alkalinity within the limits suggested below when the pH of the water is within the range given.

These values apply to water at 25°C:

pH range:	Limits for total alkalinity (p.p.m. as CaCO_3)
8.0 to 9.6.....	400
9.7.....	340
9.8.....	300
9.9.....	260
10.0.....	230
10.1.....	210
10.2.....	190
10.3.....	180
10.4.....	170
10.5 to 10.6.....	160

- (3) If excess alkalinity is produced by chemical treatment, the total alkalinity shall not exceed the hardness by more than 35 p.p.m. (calculated as CaCO_3).

C.AS TO SOURCE AND PROTECTION.

1. The water supply shall be:

- (a) Obtained from a source free from pollution; or
- (b) Obtained from a source adequately purified by natural agencies; or
- (c) Adequately protected by artificial treatment.

2. The water supply system in all its parts shall be free from sanitary defects and health hazards, and all known sanitary defects and health hazards shall be systematically removed at a rate satisfactory to the state health officer.

3. (a) Rules and regulations and/or ordinances prohibiting connections or arrangements by which liquids or chemicals of unsafe, unknown, or questionable quality may be discharged or drawn into the public water supply shall be in force and effect.

(b) Provisions shall be made to enforce such rules, regulations, and/or ordinances effectively on all new installations; and

(c) A continuing program to detect health hazards and sanitary defects within the water distribution system shall be carried on.

4. For the purposes of these regulations responsibility for conditions in any water supply system shall be considered to be held by:

(a) The water purveyor from the source of supply to the connection to the customer's service piping, and

(b) The owner of the property served and the municipal, county, or other authority having legal jurisdiction from the point of connection to the customer's service piping to the free-flowing outlet of the ultimate consumer.

Section 3. Application for approved water supply signs shall be made to the State Health Officer by an authorized representative of the city on forms prescribed by the State Health Officer.

Section 4. The State Health Officer may cause the approved water supply signs to be removed from display by any community when the State Health Officer determines that the water supply does not comply with the standards set forth above, PROVIDED, That an interval of sixty days shall be allowed for the water purveyor to make necessary corrections.

Section 5. Whenever approved water supply signs are erected by a community the structure holding the sign and the location shall be in conformance with the requirements of the State Highway Department.

Section 6. Approved water supply signs which have been erected by a community shall be maintained at the cost of the community displaying them. Signs which have become unreadable or unusable for any reason while on display shall be replaced by the community.

Section 7. Whenever issued to an incorporated city or town, approved water supply signs shall be erected at the corporate limits on each major highway entering the town, preferably on the same support and below the sign designating the name of the community.

Approved October 9, 1953.